Two Decades of Research Comparing For-Profit and Nonprofit Health Provider Performance in the United States*

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Objective. This article reports on a systematic review of data-based, peer-reviewed scientific assessments of performance differences between private for-profit and private nonprofit U.S. health care providers published since 1980. Methods. Computerized bibliographic searches of all relevant databases yielded 149 studies (179 assessments) that compared the performance of for-profit and nonprofit health care providers on four performance criteria (access, quality, cost/efficiency, and/or amount of charity care). Reported findings on performance were coded in one of three ways: for-profit superiority, nonprofit superiority, or no difference/mixed results. Results. Overall, the nonprofits were judged superior 59 percent of the time, the for-profits superior only 12 percent of the time, and for the rest (29 percent), no difference was found or results were mixed. Conclusions. Caution is warranted on policies that encourage private for-profit entities to replace private nonprofit providers of health care services in the United States.

For-profit or investor-owned health services have come to play an important role in the American health system (Ginzberg, 1988; Light, 1986). In 1999, the Commerce Department reported that 11 percent of general hospitals, 31 percent of psychiatric hospitals, 64 percent of HMOs, 70 percent of nursing homes/home health care providers, and 85 percent of dialysis units were for-profit (U.S. Census Bureau, 1999). Many studies have sought to compare the performance of private nonprofit and private for-profit providers, but none of these is definitive. Research on the topic is dispersed across disciplines (public health, nursing, medicine, economics, technology assessment, policy, sociology, accounting, and commerce) and published in various journals. Several different types of for-profit and

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nonprofit providers have been assessed, including hospitals, nursing homes, 
HMOs, home health care services, psychiatric inpatient hospitals or 
hospital-based care units, and dialysis facilities.

During the 1990s, for-profit health care providers sought to offer health 
services at a competitive cost and, at the same time, maintain a high quality 
of care without compromising access. Economic theory predicted that for-
profit health care providers would be more cost efficient and better managed 
than nonprofit ones because of market-generated incentives (Clark, 1980; 
Economist, 2001). Nonprofit enterprises are sometimes considered in-
herently inefficient and unable to compete effectively (Gray, 1991b; Hassan, 
1996; Wilder, 1996). Market discipline is thought to have a greater impact 
on managers of investor-owned (for-profit) health care providers (Jensen and 
Ruback, 1983; Manne, 1965). Property rights theorists in economics contend 
that for-profit enterprises will have lower costs and greater efficiency 
(Clarkson, 1972; Frech III, 1976). In addition, for-profit providers have 
opportunities unavailable to nonprofit providers to raise capital and expand 
facilities (Jaspan, 1998).

Countering these views are those who argue for the superiority of nonprofit 
providers of health services (Arrow, 1963; Donovan, 1997). They speak of a 
special mission to serve the community, assure access, provide charity care, 
and do research (Lawrence, 1997; Lawrence, Mattingly, and Ludden, 1997). 
In theory, nonprofits should be able to provide services at lower costs than 
their for-profit counterparts because they have lower overall administrative 
costs; some research suggests that this is the case (Woolhandler and 
Himmelstein, 1997). Nonprofits do not pay taxes on income, property, or 
purchases (Reinhardt, 2000). They benefit from volunteers, receive financial 
contributions that are tax deductible to the giver, have access to subsidized 
loans, and pay lower CEO salaries (Gray, 1991b; Reinhardt, 2000).

More recently, distinctions between the for-profits and the nonprofits are 
being questioned (Bleche, 1998; Frank and Salkever, 2000; Needleman, 
2001), and some economists contend that differences are disappearing 
altogether (Frank and Salkever, 2000; Sloan, 1998). For example, nonprofit 
hospitals sometimes establish for-profit partnerships (Jackson, 2001). 
Today, market competition appears to require that the nonprofits imitate 
the for-profit providers and pay less attention to social responsibilities 
(Consumer Reports, 1996; Gray, 1991a, 1991b; Mobley and Bradford, 1997). 
Competition is increasingly focused on the quality of care, as employers become more sophisticated purchasers. Nonprofits experiment 
with new investment strategies for their endowment dollars, including the 
stock market (Lagnado, 2001). Today, executives of nonprofits and for-
profits agree that they face the same pressures, share the same incentives, and 
that convergence between them is taking place (Nelson, 1997; Weisbrod, 
1988).

In short, a review of the social sciences literature suggests that economic 
theory favors the for-profit, that the tax code favors the nonprofits, but that
recent events appear to be driving the two closer together so that many of the
conventional distinctions between for-profit and nonprofit no longer apply.
As a policy matter, the evidence favoring one form or the other appears
contradictory or confused at best. The question is: How does the empirical
research inform this debate? Is there a consensus among scholars who have
taken a systematic look at the relative performance of the two forms and had
their findings affirmed by scientific peer review?

No exhaustive, systematic review of the relative performance of for-profit
and nonprofit health care providers has ever been undertaken. Moreover,
earlier summaries of published research from data collected in the 1970s and
1980s were either fragmentary, based on a limited number of provider types,
or restricted to a single geographical area. “No clear difference” was the
most common conclusion. In 1986, Ermann and Gabel produced a
synthesis of research that compared independent, mostly nonprofit hospital
performance with investor-owned (for-profit) multihospital systems on cost,
quality, and access to care. They found higher costs in investor-owned
systems, but no differences between these systems and nonprofits on access,
quality, or the provision of charity care (Ermann and Gabel, 1986). Also in
1986, the Institute of Medicine reported diminishing differences between
for-profits and nonprofits across several variables (Gray, 1986). Similarly,
other studies in the mid-1980s suggested that for-profit or nonprofit status
mattered less and less, that performance distinctions on quality, cost, and
access were diminishing, and that the two provider types were becoming
indistinguishable (Goldsmith, 1984; Schlesinger, Marmor, and Smithy, 1987).
Hawes and Phillips, however, reviewing published data from the
1970s and early 1980s, found that for-profit nursing homes were cheaper.
Most of the studies they reviewed reported that nonprofits offered somewhat
better quality, implying a possible tradeoff between cost and quality (Burston
et al., 1993; Hawes and Phillips, 1986; Morey et al., 1992). Our intent is to
offer a more exhaustive and systematic study of the empirical research on
these issues to help settle the question of whether nonprofit or for-profit
ownership status matters for performance in health care.

Methodology

Two approaches were employed to obtain a list of all relevant studies for
this systematic review. First, a computerized bibliographic search of
databases and published indexes and abstracts was undertaken, including
Medline (Ovid and Pubmed versions), Web of Science (Social Sciences
Citation Index and Science Citation Index), ABI/Inform, and Sociological
Abstract since 1980. Indexing terms employed for English-language-only
article retrieval (restricted to human subjects) included for-profit, for profit,
nonprofit, not-for-profit, not for profit, health services, health providers,
psychiatric hospitals, dialysis centers, home health care, HMO, nursing homes,
and hospitals. This online literature search yielded 1,428 published articles
that were then closely screened on the following inclusion criteria: (1) report of original data comparing for-profit and nonprofit health care delivery in the United States on one or more of four performance variables of interest, (2) completion of data collection after January 1, 1980, and (3) publication in a peer-reviewed journal. Peer-review status was determined from Ulrich’s Periodicals Directory (Ulrich’s Periodicals Directory, 2001) and by follow-up telephone calls or letters to journal editors whenever Ulrich’s failed to report this information. Second, the bibliographies and reference lists were hand searched for additional articles. Altogether, 149 met the specified criteria for inclusion and were retained. Full bibliographic citations for each are listed in the Appendix.

These 149 articles reported 179 performance assessments on one or more of four common performance criteria: access, cost/efficiency, quality, and amounts of charity care. All the studies inventoried were quantitative in character, basing their conclusions on inferences from aggregated empirical data. Comparisons in these studies, however, differ in several ways. Most commonly, data for for-profit providers were compared with data for concurrently existing nonprofits from the same geographical area. The areas considered ranged over a variety of geographic units—some national in scope, others limited to a single state. In contrast, a few studies compared each provider’s pre- and post-conversion performance and then aggregated these assessments across providers.

Studies differ in how they characterize and measure performance. Cost/efficiency is defined in the various studies inventoried as expenses per patient, cost per patient day, cost per case, net patient revenues, mark up, basic room rate, profitability, efficiency, or surplus. Cost/efficiency performance also includes economic efficiency, price efficiency, and productivity. For purposes of this systematic review, lower costs or better cost efficiency were assumed to be preferable to higher costs. Quality is defined in several ways in the inventoried studies. It includes lower adverse event rates, lower mortality rates, lower noncompliance notification, lower rates of state facility closures due to violations of state regulations, lower disenrollment rates, a broader array of services, a full continuum of health care, more patient education, or a higher Health Plan Employer Data and Information Set (HEDIS) score from the National Committee for Quality Assurance (NCQA). Studies of patient satisfaction with services of for-profit and nonprofit providers were excluded because the relationship of this variable to quality is uncertain (Landon and Epstein, 2001). Because poorer quality HMOs have been found to spend more on administration (Born and Geckler, 1998) and less on actual medical care, a higher medical loss ratio is taken to be an indicator of higher quality, although this is controversial (Robinson, 1997). Higher quality is assumed superior to lower quality and to represent better performance.

In the studies inventoried, access to care is typically concerned with whether a provider takes on its fair share of the disabled, unprofitable
emergency room care, Medicaid and Medicare patients, and other more expensive patients and treatments. Access to health care is defined as being able to obtain "needed and effective health care services ... regardless of ... health conditions, risks, or ability to pay" (Daniels, Light, and Caplan, 1996:36). A definition of charity care in the literature is not as straightforward because some studies consider charity care to be any unpaid services provided, uncompensated care, and bad debt. Others exclude these, while retaining a stricter definition. In line with a public health perspective, relatively greater access and more charity care are taken as preferred and assumed to represent better performance.

To avoid any selection bias, all studies that met the criteria were included and given equal weight for purposes of this analysis, despite their differences in scope and definition. Unlike a quantitative meta-analysis, where sample statistics are aggregated across comparable studies, our synthesis of studies attended principally to statements of findings on relative performance that appear in each article's conclusion. We deferred to the peer-review process to ensure each study's validity and to the authors' own inferential judgment on the relative performance of for-profit and nonprofit providers in their reported results. These statements were coded as findings favoring the superiority of either for-profit providers or nonprofit providers, or as findings of no clear superiority between them.

Our results from this inventory of findings are reported as simple counts. Tests of statistical significance are not presented, since the intent here is to inventory the full universe of studies and characterize the population that met formal criteria for inclusion, without employing sample-based estimates on any particular subset of "representative" studies.

Comparing For-Profit and Nonprofit Health Care Providers in the United States Across Two Decades

Research interest in the comparative performance of for-profit and nonprofit health care providers has steadily increased over the last two decades. On average, about six or seven research studies were published each year, with the number increasing from two or three a year in the early 1980s to 18 in 1999. More studies collected their data in 1994 than in any other single year; 15 studies published in subsequent years used 1994 data. However, not all provider organizations have received the same level of attention. The comparative performance of for-profit and nonprofit hospitals has been, by far, the most common topic of research (see Figure 1).

For-Profit Providers are Not Better on Cost

Professional opinion and the news media offer a mixed assessment regarding the relative performance of for-profit and nonprofit providers on
cost. The *Wall Street Journal* reported that for-profits appear to charge employers less for employee health insurance coverage (*Wall Street Journal*, 1997). For-profit *nursing homes* are reported by some researchers to cost less than nonprofit nursing homes (Marmor, Schlesinger, and Smithey, 1986; Philipson, 2000). However, according to other studies, investor-owned *hospitals* are not necessarily more cost efficient and do not typically have the expected economies that would distinguish them from the nonprofits (Gray, 1990). One study found that the lower costs reported by for-profit providers were due to case mix differences (Aring, Nordquist, and Capitman, 1987).

Fifty-six of the 149 studies that assessed performance differences since 1980 considered cost. Surprisingly and contrary to what economic theory predicts, the nonprofit providers did better on cost/efficiency than the for-profits in the majority of these studies (see Figure 2). Only 13 studies (23 percent) reported that the for-profits were superior. In other words, in almost 77 percent of the comparative studies since 1980, nonprofits were either found to be superior on cost/efficiency or there was no observed difference from for-profits.

A search for time trends in study results over the last 22 years found no clear pattern of change or improvement in scholarly assessments of the relative cost performance of for-profit providers.

**Quality of Care—Nonprofits Demonstrate Superior Performance**

A literature review in 1979 found no difference in quality of care between for-profit and nonprofit providers from the 1960s through the 1970s (Palmer, Reilly, and Reilly, 1979). Others reported a clear superiority of
nonprofit providers on quality (Bell, 1995; Hawes and Phillips, 1986; McClellan and Sniegier, 2000). The public appears to believe that nonprofit providers offer better quality (Miller, 1998). Various sources come to different conclusions about the quality of care in for-profit and nonprofit hospitals (Davis, 1991; Frank and Salkman, 1994; Gaumer, 1986; Gray and McNerney, 1986; Ruchlin, Pointer, and Cannedy, 1973; Sloan, 1998; Thomas, Orav, and Brennan, 1999). A systematic review and meta-analysis undertaken in 2002 reported a higher risk of death in private for-profit hospitals compared with nonprofit hospitals (Devereaux et al., 2002). Ralph Bell and Michael Krivich argue that among nursing homes, the for-profits are more likely to transfer dying patients to hospitals, making it difficult to compare these two provider types on mortality rates, an important measure of quality (Bell and Krivich, 1990).

In the last decade, health economists have argued that there should be little difference between for-profit and nonprofit providers in the quality of their health services (Sloan, 1998). Economic theory suggests that market competition in the health sector will provide adequate incentives for all providers to improve quality. Selected interviews with opinion leaders in the business community indicate that employers are increasingly interested in quality (Mahar, 1996). Economists also claim, however, that for-profit providers typically respond to competition more quickly than nonprofit providers in improving quality and attracting customers (Rice, 1998).

Sixty-nine of the 149 studies in this systematic review sought to compare the nonprofit and the for-profit providers on at least one quality-of-care measure. Forty-one of these studies (59 percent) found that nonprofit providers were superior, and 20 (29 percent) reported no difference. Only eight (12 percent) reported that the for-profits provide a quality of care superior to that of the nonprofits (see Figure 2). There are no clear time trends regarding quality in these results.
Access—Are the Differences Between the For-Profits and Nonprofit Health Care Providers on the Decline?

Access to health care is important, especially for those with major health risks (Ayanian et al., 2000). If true to their mandate and mission, nonprofit providers would try harder to assure access than the for-profit health care providers, who must view access as secondary to investor interests, such as profitability. Research from the 1970s suggests that nonprofit providers can be expected to do better on measures of access than for-profit providers (Marmor, Schlesinger, and Smithy 1986).

Thirty of the 149 studies summarized here compared the nonprofit and for-profit providers on access. Twenty (67 percent) found the nonprofits to be superior. Only one study (3 percent), comparing hospitals with data from 1992, found the for-profits to have done better on this criterion, and nine (30 percent) reported no difference (see Figure 2).

Time trends on this performance criterion are of interest. Research published in the 1990s appears more likely to find “no difference” on access between the for-profits and nonprofits than was true earlier (see Figure 3). The increasingly competitive market may have reduced the relative performance differences between types of providers on access: as competition becomes intense, the convergence effect discussed above may come into play with respect to access (Baker et al., 2000; Hirth, 1997; Jhin, 1996; Langley, 1998). However, publication dates can be misleading. Of the nine studies finding “no difference,” three relied on data collected before 1990, three used data from the early 1990s, and three used data collected in 1996 or later. Moreover, of the three using the latest data, one is an HMO study; the other two are hospital studies. The only other HMO study on access finds nonprofits superior, while nine earlier hospital studies show clear
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differences in performance. Thus, on closer inspection, the evidence for
cconvergence on access seems inconclusive.

Amount of Charity Care—The Nonprofit Providers Do Better

When charges for services go unpaid, providers typically refer to this
amount as uncompensated care. Common practice is to break this category
down into bad debt, when collection is unsuccessful, and charity care, when
no payment is sought. The distinction between the two in the studies
reported on here varied widely. Some argue that bad debt is still charity care,
regardless of whether it refers to a patient who is perfectly able to pay but
refuses to do so or to one who simply cannot afford to pay. From the
provider’s point of view, “uncompensated care” may or may not be “given”
freely, but it remains, technically, a “gift.”

Nonprofit providers are expected to undertake a certain amount of charity
care (required in the State of Texas) and to act in the interest of the larger
community, both to justify their tax advantage and because it is in accord
with their mission (volunteerism, philanthropy, service to the poor, and
social solidarity) (Thiesen and Pelfrey, 1993). They can, therefore, be
expected to do more in this area than for-profit providers. Some suggest,
however, that there is little difference between for-profits and nonprofits on
this criterion (Sloan, 1998; Sloan, Valvona, and Mullner, 1986). Others
argue the contrary, that nonprofits do more charity care than for-profit
providers (Marsteller, Bovbjerg, and Nichols, 1998). In the 1980s, a study
of nursing homes, psychiatric hospitals, and facilities for the disabled
suggested that nonprofit providers were “bonoﬁcers”—deﬁned as providers
who do not put proﬁts above socially beneﬁcial outcomes (Weisbrod, 1988).
In 1991, 80 percent of nonproﬁt hospitals were, in fact, found to provide
uncompensated care that more than balanced the tax beneﬁt received
(Morrissey, Wedig, and Hassan, 1996). However, others indicate that for-
proﬁt providers avoid locating in geographical areas where they are likely to
encounter many uninsured patients in need of charity care or patients whose
treatment would constitute uncompensated care (Norton and Staiger,
1994). In addition, for-proﬁts have been shown to mark up their charges
relative to cost more than nonproﬁts and thus may report relatively high
levels of charity care (Lewin, Eckels, and Miller, 1988; Rundall, Sofae, and
Lambert, 1988).

This systematic review indicates that for-proﬁt providers do not do as well
as the nonproﬁts on the provision of charity care (see Figure 2). Since 1980
no study found the for-proﬁts to be superior. Sixteen of the 24 assessments
(67 percent) found that nonproﬁts do better than the for-proﬁts on charity
care performance. Eight (33 percent) report no difference.

Most studies in this systematic review excluded public hospitals when
comparing the nonproﬁts and the for-proﬁts, for two reasons. First, they are
rarely included in comparisons with private for-profit providers. Second, they are seen as intrinsically different because, unlike the private hospitals, they receive direct taxpayer support to provide care to the uninsured.

Studies published since 1980 suggest that there is little evidence of any convergence effect when it comes to charity care. Taken together, these studies offer no empirical evidence that the nonprofit providers are failing to fulfill their societal obligation for charity care, no matter how competitive the market. Providing substantial amounts of charity care, when it is neither compulsory nor subsidized, could put a for-profit provider at a competitive disadvantage and jeopardize its financial viability. Further, the for-profit providers have obligations to investors to pay dividends that may preclude offering charity care (Brock and Buchanan, 1987). Nevertheless, eight studies suggest that for-profits are doing as much charity care as the nonprofits.

Conclusions

Most peer-reviewed journal articles published since 1980 that compare the performance of for-profit and nonprofit providers find that the nonprofits were superior to the for-profits. Our finding that nonprofit providers do better on cost than the for-profits in the majority of studies was not anticipated and is contrary to expectations. A large majority of studies in this systematic review report that nonprofits are superior to for-profit providers on quality and the amount of charity care provided, as well. As regards access, the proportion of studies reporting that nonprofits perform better than for-profits declined in the 1990s, although only one study in the last 22 years reported that the for-profits did better on this criterion. Studies increasingly report “no difference” between the two on access. In short, the predicted convergence in performance of nonprofit and for-profit providers was not observed, except with regard to access to health services. If performance is a consideration, then increasing the role of for-profit provision of care in the U.S. health system is difficult to defend from a policy point of view, based on two decades of research.

Certainly, caution is warranted in interpreting the results reported here. Informal affiliation or favoritism toward some providers over others on the part of those undertaking the inventoried studies are no different on this topic than in other areas of research and cannot be dismissed as a potential influence on any single study. Nonetheless, the sheer number of studies, together with the range of fields and journals included, help to mitigate this kind of investigator bias. Clearly, any technical flaws in these studies introduce error into the results that we report. The studies finding nonprofits superior should be no more prone to errors in analysis or inferential judgment than those favoring the for-profits. Without evidence to the contrary, we assumed that such errors were randomly distributed across the 149 studies. In addition, conclusions cannot be taken as indicative
of national trends—several of the studies in this database drew on state-level data. It should also be noted that giving equal weight to all articles in the inventory means that the validity of study conclusions ultimately rests on the integrity of the peer-review process. Finally, this study reflects only published results from the last 22 years and does not allow for extrapolation to the future. Nevertheless, the large number of data-based studies reporting, independently, the same results on similar performance criteria adds credibility to findings that might otherwise be viewed as anomalous or idiosyncratic. Overall, the past 22 years of research have judged the nonprofit provider more favorably than its for-profit counterpart. Additional research on this topic is clearly warranted, especially in light of the current political climate favoring competitive market discipline and the profits motivating providers of valued services.

REFERENCES


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APPENDIX

Citations for All-Peer Reviewed Studies Included in This Analysis


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